Application No. 10/673351 Amendment dated February 23, 2006 Reply to Office Action of December 19, 2005 Docket No.: 84517US!

AMENDMENTS TO THE CLAIMS

1-10. (Canceled)

- 11. (New) A device comprising:
- a PDMS body having a fluid pathway arranged to permit flow of a fluid in a first direction therethrough; and
- a light input part arranged to accept input light and permit the input light to travel into said PDMS body and through said fluid pathway in a second direction opposite of the first direction.
- 12. (New) The device of claim 11, further comprising a light manipulating part operable to manipulate the input light to travel through a specific portion of said fluid pathway.
- 13. (New) A device comprising:
- a body comprising a first material and having a fluid pathway arranged to permit flow of a fluid in a first direction therethrough; and
- a light input part on said body and comprising a second material, said light input part being arranged to accept input light and permit the input light to travel into said body and through said fluid pathway in a second direction opposite of the first direction,

wherein said first material is different from said second material.

- 14. (New) The device of claim 13, wherein said body comprises PDMS.
- 15. (New) The device of claim 13, wherein said light input part comprises glass.
- 16. (New) The device of claim 13, further comprising a light manipulating part operable to manipulate the input light to travel through a specific portion of said fluid pathway.

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17. (New) A system comprising:

- a light source operable to emit light; and
- a PDMS body having a fluid pathway arranged to permit flow of a fluid in a first direction therethrough,

wherein said body is arranged to accept the light and permit the light to travel into said PDMS body and through said fluid pathway in a second direction opposite of the first direction.

18. (New) The device of claim 17, further comprising a light manipulating part operable to manipulate the input light to travel through a specific portion of said fluid pathway.